

OLDEST BEE PAPER  
IN AMERICA

# THE AMERICAN BEE JOURNAL

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DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

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Novice and Glucose.

Mr. A. I. Root copied the following item into *Gleanings* for November, page 530, from the BEE JOURNAL of Oct. 26, page 337:

To prohibit the use of glucose by law would be about as proper as to compel hotel-keepers to use first-class meat in hash, or cheap boarding-house keepers to debilitate the butter. If persons wish to buy and eat glucose, they have a right to do so, without the other article being in any way of buying it. But we do object to their buying and eating it for pure honey and syrup, or anything except what it really is. If buyers inquire for glucose, let them have it; if for honey, sell them honey.

Whereupon he remarks editorially as follows:

"Now, if that is not exactly where I have always stood in the matter, it must be I do not see things straight. It looks to me just as if friend Newman had come over to my position; but very likely it seems to him I have gone over to his side. Never mind, so long as we are agreed."

It is very certain that Mr. Root does not "see things straight," as he terms it. The BEE JOURNAL has been very outspoken in regard to adulteration, and has strongly condemned the use of glucose not only for adulterating honey, but also for feeding bees, while *Gleanings* has not only advocated its use for feeding bees, and sold it, by tons, for that and any other purpose the buyers wished to use it, but Mr. Root has aided adulterators by avowing that it was a "pure sweet," "not bad confectionery," that it was "excellent food," and that "basswood

or clover honey" would be "improved for table use by being mixed with the first quality of glucose!"

Can it be possible that Mr. Root can honestly think, even for a moment, that the BEE JOURNAL has "come over to my position," as he states in the last number of *Gleanings*? The idea is simply infamous!

We have no desire to color his language, nor misrepresent his views, and will therefore give the following extracts from *Gleanings*, in proof of the assertions we have made. Mr. A. I. Root says:

"It seems as if the Buffalo factory improved on every ton of sugar (glucose) they send us. It is now so white and of such a pure sweet that it is not bad confectionery, just as it is broken out of the barrels. Both in appearance and taste, it is slowly but surely coming nearer and nearer to very white pure candied honey. If the flavor of basswood or clover honey were added to it, and its candying property corrected a little, it would be almost, if not quite, honey made from Indian corn."—*Gleanings for March, 1880, page 118.*

Speaking of a jar with a small piece of comb honey inserted in liquid (mostly glucose) sent him as a specimen of adulterated honey, he says:

"If I had purchased the honey, I am sure I should have been well satisfied with it, although the contents of the comb were different from the liquid portion, and none of it was crystallized. This was by no means a proof that all was not pure honey, but whether it was or not I should pronounce it both good and wholesome. A pure article of glucose is excellent food, and we should like it just as well as honey, did it not lack the flavor of the flowers!" He then adds: "I really think strong basswood honey is improved for table use by being mixed with the first quality of glucose. It is, I am sure, just as wholesome as honey."—*Gleanings for April, 1878, page 110.*

Of the adulterated honey Mr. Root says: "I am sure it is just as wholesome as honey." Can he point to a single sentence in the BEE JOURNAL that can be so construed as to give the idea that in such a sentiment "we are agreed"? If not, then he has done us a very serious injustice to say that we are agreed, unless he is ready to repudiate his own language.

He still further asserts that he has been eating it for months, aye, years, and here is the proof:

"The light yellow grape sugar that we have been using, I find almost as pleasant as maple sugar, and I have eaten it freely for months."—*Gleanings for March, 1878, page 87.*

"I feel just as safe in feeding it (grape sugar) or eating it myself, as I

would in eating the corn meal from which it is made."—*Gleanings for Nov., 1878, page 365.*

And in his catalogue of supplies for the apiary, on page 14, he says:

"I know that the Davenport grape sugar is good and wholesome, for I have used it for years."

Has the BEE JOURNAL ever said that glucose or grape sugar was "just as good as honey," for any purpose? Certainly not; but Mr. Root, editor of *Gleanings* has said so, and, therefore, we are not agreed, unless Mr. Root has changed his views! He says:

"For comb building, brood and queen rearing, during a dearth of honey, it is an excellent and cheap substitute for either honey or sugar." In the same article he says: "So far as I know" it is "just as good as honey."—*Gleanings for Nov., 1878, page 328.*

As still another proof that Mr. Root does "not see things straight," he contradicts himself point blank by saying that "grape sugar cannot be used for adulterating honey." This is his language:

"I do not think it (grape sugar) could ever be used to adulterate honey without utterly ruining it for table use."—*Gleanings for March, 1878, page 87.*

"I have favored the use of grape sugar for feeding bees, and nothing more. I have done this with the understanding that grape sugar cannot be used for adulterating honey; its bitter taste would render this impossible, aside from its invariable habit of hardening in the cells almost immediately after it is fed to the bees."—*Gleanings for Feb., 1879, page 41.*

In the last paragraph he again contradicts himself. He has said he has been eating it, and knows it is "good and wholesome," that honey would be improved by being mixed with grape sugar, and that the adulterated honey was "both good and wholesome," and now in the last paragraphs quoted he says that "grape sugar cannot be used for adulterating honey," and that he has "favored the use of grape sugar for feeding bees and nothing more!"

If a witness in court should thus contradict his testimony, he would be committed for perjury or be adjudged insane, and his evidence be ignored by the jury; but of course we shall not say such an unkind thing of Mr. Root.

It will be remembered that Messrs. Dadant and Muth, in several articles in the BEE JOURNAL for 1878, very severely criticised Mr. Root's position on glucose, and Mr. Root replied in the following language:

"Our friend Dadant is doubtless sincere in what he says of grape sugar,

but, for all that, I think him very much mistaken. I have eaten it in large quantities just as I would maple sugar, and have fed it to our bees for over a year, without a single bad feature showing itself, so far as I know. It has been used largely all over our land, and is now quite an article of commerce. I do not know what kind of grape sugar they used in France, but I am sure that that made by the Davenport Glucose Co. is wholesome and free from the impurities mentioned.... No doubt friends Dadant, Muth and, perhaps, Newman too, are sincere. I cheerfully forgive them all."—*Gleanings for Oct., 1878, page 328.*

In the BEE JOURNAL for July 13, the Rev. L. L. Langstroth gave a masterly rebuke to Mr. Root for advising the use of grape sugar for feeding bees, and for winter stores, showing that it was certain *death* to them. This convincing argument caused Mr. Root to confess as follows:

"The first experiment I ever made with it (grape sugar) for wintering, caused the death of two colonies.... They did not have the dysentery, but simply starved on heavy combs of solid grape sugar."

Mr. Root then agreed to discontinue his advice to use it for wintering purposes, and it is very generous in him to forgive us all for our efforts to convert him—but it is exceedingly ungenerous for him now to say that we have "come over" to his "position."

Here is a matter that concerns every bee-keeper. Mr. Root makes the following libellous assertion:

"Grape sugar is now almost as staple an article with bee-keepers as foundation."—*Gleanings for May, 1880, page 230.*

Staple for what? It cannot be for feeding, because Mr. Root says his bees "simply starved on heavy combs of solid grape sugar." But one inference can be drawn by the general public, and that is that bee-keepers have been persuaded by the reckless assertions that grape sugar is "pure," "wholesome," "a pure sweet," "just as good as honey," and that "basswood honey is improved for table use by being mixed with the first quality of grape sugar," and "just as wholesome as honey." Can it be wondered at, that Mr. Root's own words are frequently quoted by glucose peddlers, to establish a prejudice against honest bee-keepers? Is it a matter of surprise, that the uneducated consumers always regard extracted honey with suspicion? Who is most guilty, the bee-keeper and vendor who have been tempted to "improve for table use," or him whose writings teach by implication that it is not wrong to defraud

the honest consumer? Do not the above extracts explain why the commercial value of pure extracted honey is quoted at 8@9c., while the same article in the comb sells for more than double? Why is it that in Europe prices are nearly equal, unless because such immoral counsels have not been impressed upon the public mind?

Never have we counseled the sale or use of glucose for any purpose whatever, neither directly nor by implication; but, on the contrary, our protests against its use have been frequent and unqualified. We have sacrificed self-interest in our opposition to adulterations, and suffered much censure, but the most grievous injury we have yet received was from Mr. A. I. Root, who, with his grape sugar record before the public, unretired, says "we are agreed."

#### The Queen-Breeders of Italy.

On another page a correspondent remarks as follows:

"I confidently expect to find that 'coming bee' by following this very strain (his own breed of bees); at least I have more confidence than in sending to Italy for a queen to breed from that was reared by an ignorant peasant for no other purpose than to sell."

While we believe that America will produce the "bee of the future," we emphatically dissent from the assertion that the queen-breeders of Italy are ignorant peasants. From personal observation, and intercourse with them by letter and otherwise, we know that they are intelligent apiculturists. The main reason why we cannot expect the Italians to produce "the coming bee" is because they are more ease-loving than pains-taking; and are too much wedded to old-foggy notions, to accept the progressive ideas of our day. Many of them, however, realize the necessity of progression, and are doing all they can to impress these ideas upon all. Italian queen-breeders are by no means ignorant.

**Controversial.**—As we take our last look over this JOURNAL before closing the forms, we notice that it is quite controversial. We have a debate with Novice; James Heddon with E. L. Briggs; W. F. Clarke with James Heddon, and E. A. Thomas with G. M. Doolittle. This is the way to bring out the truth on every subject. To exchange error for truth should be our constant aim. In order to arrive at and settle down upon correct principles, we must debate every inch of the ground. The one who advocated the unsound philosophy is as much benefited by the general result as the one who comes off victorious. This is a good motto: "First pure, then peaceable."

**Fragrant.**—Mr. Julius Tomlinson, of Allegan, Mich., has sent us under date of November 10th, a very fragrant little bouquet of sweet clover blossoms. He writes: "My bees were bringing in pollen later than the 1st."

It will pay to devote a few hours in getting up a club for the BEE JOURNAL. Read the list of premiums on another page, and take advantage of the fall gatherings to get up clubs.

#### Vennor's Weather Predictions.

We have received a copy of Vennor's Weather Almanac for 1882. It is replete with valuable information in addition to the predictions for the different months for next year, and is sold at the low price of 25 cents. It contains 82 pages. We copy the predictions for the last two months of the present year. They are as follows:

November, 1881, will probably enter cold and decidedly wet, but this condition will suddenly, after the first week, give place to open and genial weather again nearly everywhere, with a disappearance of frosts even in Northern New York and Canada for a marked period. We may expect some of the finest—at any rate, most enjoyable—weather of the season during this month at New York, Boston, Philadelphia and Washington, and in Canada our "Indian summer." In western sections the fore and latter portions of the month are likely to be disagreeable, but I do not anticipate much trouble from snowfalls or blockades this winter until December. Should such occur, however, it will likely be found that the dates of the disturbances will be very nearly the same as those of the November of 1880. Possibly there may be a period of unusual warmth in proximity to the middle of the month.

There will be late fall-ploughing in Western Canada and in the Northwest, but in the last week of November a sudden and very severe fall of temperature will occur generally through Canada, with but little snow, if any, on the ground.

This month will be marked by periods of balmy and brilliant autumn weather, as in the year 1877.

December, 1881, I hardly like the look of this month, viewed from the present standpoint (Sept. 18). It "looks ugly," and smacks of cold, bitter, biting cold, north and south, east and west, with but sparsely snow-covered ground in Northorn New York and Canada, and bare ground west and south. The month bids fair to be cold and dry, rather than otherwise, and this cold may be somewhat proportionate to the heat of the past summer, and extend to extreme southern and western points. The entry of the month is likely to bring in winter abruptly in most sections where winter is usually expected and experienced. The first week of the month will probably give the first good snowfalls of the season in New York, Canada, and westward, with considerable bluster, while cold, stormy, and wet weather will be experienced in southern localities. Snowfalls will again occur about the middle of the month in Canada and the Northern United States, and during the last few days of the month, again, as far south as Washington, D. C., where it is probable the new year will enter with fair sleighing for a brief period. These snowfalls, however, are not likely to be as marked and severe as those of the past winter; but, as I have already stated, the "cold dips" look formidable in most sections.

My general impressions respecting the winter of 1881-82 at the present time (Sept. 25) point to some very open and balmy periods of considerable duration toward midwinter; early and intense cold at the setting-in of the season, and again toward and in March; a rather backward and wet spring, and cool, wet summer, with but few very hot periods.

One of the latest caprices of Madam Fashion is a bee composed of diamonds, finely contrasting with a pink pearl which forms the body, seated on a pearl-headed pin, and is the latest design for a lace brooch, so says a Journal of Fashion.

Who will take an Apiary Record Book, if we get some of them up.

We are sometimes asked who our authorized agents are? Every subscriber is such an agent; we have no others, and greatly desire that each one would at least send in one new subscriber with his own renewal for 1882. The next few weeks are the time to do this. We hope every subscriber will do his or her best to double our list for 1882.

**Coleman's Rural World**, of St. Louis, Mo., of Nov. 3, has the advertisement of Mrs. Cotton, and an editorial notice endorsing her [him, we mean.] After all the evidence of fraud that has been given, it is deplorable that agricultural papers should aid in defrauding the public thus for a few paltry dollars.

New subscribers for the Weekly BEE JOURNAL, for 1882, will have all the remaining numbers for 1881 free from the time the money is received at this office. Therefore, the sooner they subscribe for it, the more they will obtain for the \$2.

Subscriptions may commence with the first number of any month in the year.



#### MISCELLANEOUS.

**Good Fall Crop of Honey.**—The Indiana Farmer says:

Mr. J. Hole, Butlerville, Ind., writes us that this has been one of the best seasons for fall honey that they have had for several years, principally from golden rod and asters, making it necessary to extract from the body of the hives to give the queens room in which to lay. We have received other reports of like character from several different localities, all going to show that the yield is quite general, making the prospect for safe wintering very fair.

**Well Turned.**—The Daily Argus, of Middletown, N. Y., remarks as follows:

Scientific bee-culture has taken a firm hold up the Midland. The bee-keeper who now kills his bees to get the honey is twin brother to the man who kills a hen to get her eggs. I was going to write an article on apiculture when I began this, but perhaps the best thing I can do is to advise all of my readers who are in anyway interested in bees or honey, to send postal card for sample copy of the AMERICAN BEE JOURNAL, Chicago, Ill. They will find it a live paper on the bee, and its editor as fine a fellow as ever handled a pen.

**Bees in Navarro County, Texas.**—B. F. Carroll, Dresden, Texas, in the Texas Agricultural Journal, thus describes the season for honey:

The year 1881 will long be remembered, first, by the unusual severity of the winter; 2d, by the terrible freeze on the 14th day of April, that destroyed nearly every green vestige; 3d, by the strange phenomena of the heavenly planets and the many comets; 4th, by the most destructive drought that has visited Texas since 1857. On the 19th of May we had a good rain, and since that time we have not had over one and a quarter inches

of rain, and this has fallen during September and October—nearly five months without rain, and the dry weather continues. After all this dry weather, the bee-keepers of old Navarro have done very well. Many of us have gathered over 100 pounds of extracted honey per old colony, and our bees are now booming. The cool nights have started the cotton plant to growing, and it is now blooming nicely, and furnishes, during September and October, an excellent quantity and quality of honey, and with the aid of broom-weed and goldenrod, our bees are destined to go into winter quarters in excellent trim, and give us some surplus. They are 50 per cent. better off now than last year at this time. The increase of bees by natural swarming during this year did not exceed 10 per cent. By the aid of comb foundation, I increased my stock over 100 per cent., and sold at least 25 per cent. more in early queens and full colonies.

**Avoid Bee-Murder.**—The Grange Bulletin records its views of killing bees by neglect, in these words:

The preparation of bees for winter should now be the study of all conscientious bee-keepers. If not yet decided as to how to prepare them, read up at once. Apply the knowledge gained to practice, and be prompt in making all necessary arrangements; for no man deserves the name of bee-keeper, or should attempt to keep bees, who has not resolved with all sincerity to avoid bee-murder. Cool nights have a tendency to retard brood rearing, consequently some assistance should be given to enable the bees to keep as warm as possible. A quilt or blanket is very beneficial to the bees spread over the frames. It is immaterial of what they are made. Pieces of carpet, anything will do that will keep in the heat and absorb the moisture arising from the bees.

**Curiosities of Bee-Stings.**—Prof. A. J. Cook, in the New York Tribune on this subject, remarks as follows:

What has not been recommended as a specific against bee-stings? Clay wet with spittle, various acids, the expressed juice of certain plants, etc. The last is the following from the Scientific News: First remove the sting as soon as possible with a forceps, or by scratching with the finger nail, but never between the thumb and forefinger, because this squeezes more of the poison into the wound. Next squeeze the wound till a drop of blood comes out, and then rub the place with a solution of salicylic acid. A trial of the above proves that it is, like most of the others, without effect. The active principle of bee-stings is formic acid, so we would suppose that an alkali would be the best remedy. Nor are we wrong, as ammonia applied to the part after the removal of the sting, as described above, is probably the best application that can be used. A curious fact connected with bee-stings is familiar to all bee-keepers. It is that sometimes a sting is much more painful than at other times. Usually, a sting affects me so slightly that I do not mind it at all. Occasionally, however, it is very painful, swells badly, and is followed by lameness for 2 or 3 days. Whether this peculiarity follows from the variable amount of poison injected at different times, or to the greater susceptibility of some portions of the body to the poison, I am not able to say; but this fact, and the readiness with which some people generalize from a single observation, accounts for the multitudinous remedies for bee-stings which appear in the papers, the most, of which, are worthless. It is a curious fact that the receiving of frequent stings seems to inoculate the person so that the stings lose their power to produce harm. I have not only proved this to be true in my own case, but I see it illustrated in my students every summer.



For the American Bee Journal.  
That "Coming Bee."

JAMES HEDDON.

So much has been said *pro et con* in regard to the Cyprian bee, lately, that many of us are led to wonder what part she is going to play in the make-up of the "coming bee." Now, I have never seen a Cyprian, but have conversed with those who have, and have read the reports of numerous tests made with them. I suppose that the conflicting accounts regarding their ferocity must be settled in our minds in some way. It is about settled in mine now.

I have noticed that those who always import the genuine, and those who have purchased from them, agree that they sting through boots and all. These bees look so much like the Italian, that I have no doubt but that the bees of those who "find the Cyprians very gentle," are simply Italians, and not the pure belligerents. This is the only way that I can account for the very different reports handed to us out-siders.

I hardly think that any more than the best Italians and blacks are needed to produce the coming bee. While I have full faith in such a production, I hardly think it will be done all in a minute, or by one, two or three men alone. I think it will be the aggregated labors of a number of Americans. It will be a growth—evolution, hastened and guided by the hand of intelligence. I cannot refrain from penning a smile at the late prize effort made by the Rev. E. L. Briggs, of Iowa. While I sympathize with the end in view, I must say that the method he employs to reach it is not at all the one I follow, advocate or believe in. I will explain. First, let us consider the four points of excellence that Mr. B. makes the test:

1st. "The largest in size herself, and producing the largest worker progeny." I have seen small queens that produced large, gentle and industrious bees, and such queens should not be ranked as second class.

2d. "Producing the brightest colored workers." The experience of the most extensive importers and honey producers, is that the dark Italians are superior to the bright ones.

3d. "Her progeny being the most peaceable in handling, and adhering to the combs the closest." We agree exactly about the peaceableness, but I consider the adherence to the combs of minor consideration compared with other points of merit.

4th. "As far as it can be ascertained this fall, the most prolific breeder, and honey-gathering worker offspring." Now in regard to the most prolific breeder. I deem it a great mistake in bee-keepers to cherish and encourage this quality. If a queen cost five dollars, and the hive, combs, etc., only five cents, then prolificness would be of great value; but as just the reverse of this is true, and as it is also true that in the greater profusion a vegetable or animal product, the lower is the quality of the product, I find that the most profit lies in using a hive of that size that the very moderately prolific queen always keeps full of brood. Small hives for surplus.

The honey-gathering quality in the offspring is desired by all, but I want two or three years to thoroughly test a strain of bees for this valuable trait. Comb-building capabilities are also of vast importance. So far as I am concerned, I would as soon order a queen of any of the others who sent one to Mr. Briggs, as from Dr. Wilson. It seems to me that when money and time are devoted to tests of qualities, that these tests should be made comprehensive and thorough enough to satisfy the public. "Handsome is that handsome does," valuable is that valuable proves. Below I give you a

test of success in skillful breeding, by quoting from a letter just received by me, from an honest man living in another State. I quote without his consent, and, therefore, withhold the signature:

.... "It has been a very dry and hot season; have had a good crop of honey, and of good quality. My crop will average about 200 lbs. of box honey per working colony in the spring; have doubled my number. From one colony in the spring, with no extra chance, I have to-day three new colonies, all good and in the best condition (except about 15 lbs. too much honey in each of the hives); from the old one and increase, 400 lbs. of white honey and 300 dark, all in 2-lb. sections. Another gave 400 lbs. and no increase. I have worked my bees for all they are worth. A large portion of my white honey was from red clover. I have a strain of bees that I commenced breeding from—a hybrid—that worked on red clover five years ago; have bred from the ones that gave the most honey without regard to anything else, and as closely in-and-in as possible. They are improving every year, and have taken as high as 40 lbs. of white comb honey per colony when there was nothing but red clover for them to work on, and colonies of Italians of the "period," full as strong, did not get 1 lb. I confidently expect to find that "coming bee" by following this very strain; at least, I have more confidence than in sending to Italy for a queen to breed from that was reared by an ignorant peasant for no other purpose than to sell. In my opinion, the way our leading breeders are improving, or claiming to improve our bees, is a perfect humbug. I found out years ago, that to rear queens that would satisfy the average customer, I was ruining my stock for honey. I have not reared any for the market for years."....

I believe the above writer commenced the season with about 75 colonies. I have heard that a party who keeps the long, leather-colored Italians, more or less crossed with the German bee, has also had a good season, and has secured an average of 200 lbs. per colony from 150 colonies, getting over 400 lbs. from some of the best, all comb honey in sections. I have not heard from him personally, and did not learn as regards increase.

The above reports, in my judgment, give greater evidence as regards qualities, than do the awards of committees, or the down on the hind legs of the workers. As smoke is the best evidence of fire, so honey is the best evidence of superior bees. My fears in regard to Cyprians are these:

They swarm too much.  
They build too many queen cells.  
They are too cross.

This cross disposition, coupled with the bee's sharp weapon, is no matter to be made light of. Property, to be valuable, must not only be suited to its peculiar owner, but to the populace at large. That is what constitutes demand; demand makes price. The pursuit would have a very great setback were the dread of the sting to be increased; the popularity of the pursuit would also fall, I fear, as stated by the BEE JOURNAL.

The prolificness, early and late, in this locality, would, one year with another, be of no value, while it would greatly aggravate dysentery. The bees we have breed too long, leaving off not earlier than the middle of October, and beginning as early as February 1st.

Note this: The Italians were brought to us as an improvement over the Germans. To cross these imports with domestics was to contaminate them. Now, the Cyprians are brought in the same light as were the Italians, and they become improved at once by a cross with those they were calculated to supersede. How is it? I have but one desire in regard to them, and that is, that none of my neighboring apiculturists will bring any of them into this community till better reports come from them.

Dowagiac, Mich., Oct. 1, 1881.

For the American Bee Journal.  
Bees and Honey in California.

WM. MUTH-RASMUSSEN.

From the AMERICAN BEE JOURNAL of Oct. 12, received a few days ago, I learn that at the 12th Convention of the North American Bee-Keepers' Society, held in Lexington, Ky., in the beginning of October, I was elected State Vice President for California. Thanking the Convention for the honor conferred upon me, I propose to fulfill to the best of my ability the labor which my office calls for, and hope to contribute my part to make the next Convention as interesting and beneficial as the one just past has been.

Owing no doubt to the almost total failure of the past honey season, I find but a very meagre report from this State, giving a very imperfect idea of the magnitude of the honey interest of California, as about every second year is a failure for honey production here, and it has been thus, since I entered the business 12 years ago. We may hope that the coming season will be one of prosperity for the California bee-keepers, and that at the next Convention we may be able to present a more favorable report than the last.

I am just on the eve of a trip to Los Angeles Co., where I will meet some of the principal honey producers of Southern California. Shall also communicate by letter with the Presidents of the various District and County Associations, and appoint suitable persons to encourage exhibits of honey, etc., at the local fairs, for which purpose I await the pamphlet to be furnished State Vice Presidents.

I have just within the last week completed my extracting, for which reason I could not report in time for your statistical table. I delayed the last extracting as long as possible, as the bees were still getting some honey, but frosty nights set in and it was with some difficulty that I got the honey out of the combs.

The principal honey plant in this locality is Alfalfa, or Lucerne, which here is allowed to go to seed before harvesting, while in the Southern Counties it is cut as soon as it shows bloom. This year, however, it did not yield as much honey as last year.

The valley in which I live lies between the Eastern part of the Sierra Nevada and the Inyo Range. The mountains, on both sides, contain a number of mines, while only a narrow strip of the valley is suitable for farming. Bees are kept to some extent by several farmers, but in the old-fashioned slip-shod way, and my extractor and improved hives have created quite an interest, although as far as I know, thereby it stands. I am the only person in this valley making an exclusive business of bee-keeping. I commenced the season with 24 colonies, have increased them to 53, and taken about 3,500 lbs. extracted honey; 12 or 14 of the colonies were queen-rearing nuclei, from which I did not extract, but they are now good, strong colonies. My bees are nearly all Italians and hybrids.

Independence, Cal., Nov. 1, 1881.

For the American Bee Journal.  
The Business of Supply Dealers.

J. V. CALDWELL.

The business of the dealer in supplies for the apiary having never taken its place among the business associations of the day, a few thoughts as to the manner in which it is carried on will, perhaps, be in order.

While reading the advertisements of supply dealers as they appear in the bee periodicals, the thought often comes to my mind "why should men engage in this business carry it on in such utter disregard of the acknowledged laws of trade?"

It being a well-known supposition that all men engage in business for the purpose of making money, unless indeed they be near kinsman to some enthusiastic writers on bee-culture,

who tell amateurs in the business how the bees "work for nothing and board themselves."

I cannot force myself to the belief that these dealers are such noble philanthropists as would seem to be the case at first sight. Of course we cannot expect to succeed in having all sell at the same price.

Different locations, in some instances, give one person the advantage in some respects. If a man lives in the midst of a great lumber region, he can afford to sell hives or boxes cheaper than another living in the wilds of Western Kansas, and still have the same profit. But it seems to me there are certain conditions which all might observe, for instance, we know choice queens cannot be raised very cheap without loss to the breeder; queens are sold cheap, but whether or not they are choice is another question. I have sold queens cheap, and have done so at a loss, but in future I shall not be so foolish.

Rev. A. Salisbury says, "none but fools sell dollar queens, himself included," and I guess he hit the nail on the head that time. While people buy queens as we know they do to improve their stock, it seems to me if all responsible breeders would sell only choice tested queens, the bees would be improving from year to year. And again in view of the heavy loss among confiding bee-keepers, every dealer should be compelled to give good and satisfactory references. This is customary among all business men, and if a man cannot give good references he should not expect men to trust their hard-earned dollars in his hands. Finally, let all who are in the business strive to deal honorably with our fellow men, and let our moral character, business habits and standing, be open to the rigid scrutiny of all men.

Cambridge, Ill., Oct. 14, 1881.

For the American Bee Journal.

The Best Out-Door Protection.

E. L. BRIGGS.

To place one's bees in a good cellar, where the temperature is kept uniform at between 40° and 50° is, doubtless, the safest and most economical plan for wintering bees that has yet been devised. But even this mode must be attended with certain precautions, or in many cases disaster will result.

1. They must be put in before frost and dampness gathers in the combs.

2. They must have some kind of upward ventilation, but not enough to create a draft through the hive.

3. The cellar should be kept dark, and be well ventilated from the bottom.

They should be carried in somewhere about the middle of November, and left in stillness and perfect quietude until about the first of April. If, however, they show signs of restlessness, they should be set out on their summer stands for one day, provided, a calm, sunny day occurs with the thermometer above 45°; but never if below until such a day occurs. Let this be done in February, if possible.

But, after all, when one's apiary becomes large in numbers, this mode involves much labor. I have experimented to some extent, therefore, on out-door wintering. The following mode I believe will prove a success:

I have set my colonies in rows of 9 each, making the row a little less than 16 feet from one end to the other, say 15 feet 4 inches, doing this in the summer in preparing for winter. Let the hives front the south, and the fly-hole of each hive be 5 inches from the ground; the back end of the hive a couple of inches higher. Take a common fence-board, 6 inches wide and 16 feet long, and place it in front of the row, so as to leave a space 1½ inches in front of each hive, between the board and hive; saw a notch in front of each hive, 3 inches wide and 1 inch deep, for the reception of a tubular entrance, to extend from the fly-hole of the hive to the outside of the fence-board. This winter entrance is easily made of 3/8 lumber—top piece 6x3 inches, sides 6x1/2 inch, bottom 3

inches wide, and long enough to reach the bottom board of the hive in front. Tack the half-inch strips to the top; next tack on the bottom. This forms a communication from the inside of the hive to the outside, through which the bees can pass at any time when the weather is mild enough for them to fly. A foot plank, 16 feet long, set up on the top of the fence-board above the winter fly-holes, forms the balance of the front of this winter receptacle. Two more such boards forms the back, placed 3 inches away from the back ends of the hives. Nail the front and back at the ends to pieces of scantling; put in end pieces to fit, and nail to the same corner pieces.

You now have a tight box 16 feet long, 18 inches high in front, 2 feet high at the back, and 28½ inches wide in the inside, without a bottom. This rests upon the ground, around the 8 or nine hives, and when the entrances are put in, is to be packed full of chaff in front, rear, underneath, and between the hives, up to and even with the top of the honey-board. Take off the honey-board, and spread over the whole top of the frames a coarse cotton or linen cloth, to keep the bees from flying out when the top chaff-box is removed. Make a frame the exact size of the top of the hive, 2½ inches deep, and tack on the under side the same kind of a cloth for the bottom, and then fill this box with chaff and set it upon the hive, in contact with the other cloth. Fill all the spaces between the top boxes, and the back and front, with chaff also, and the hives are now completely isolated from the weather, except by the tubular fly-holes, which are only ½x2 inches, and 6 inches long.

Cover the outside box with any kind of a lid that will keep out the snow and rain, but have it so that the lid can be raised on any sunny day, when it is desirable to have the bees fly out for an airing. On such a day raise the lid and prop it up, so that the sun can shine in upon the cloth coverings of the hives in full force. Then lift off the top boxes of chaff, set them in any convenient place to dry out the dampness, and let the sun's rays fall directly upon the cloth coverings above the frames. This will warm up each colony in a few moments, also evaporate all the dampness in a few hours, and give the bees their necessary airing at the same time.

At the approach of nightfall replace the top boxes of chaff, make all snug again by leveling off the chaff, close the lid, and your bees are in good condition for another winter nap of 6 or 8 weeks.

The top chaff box affords all the upward ventilation necessary, while the bees are quiescent in their semi-torpor state; and the long tube will not let sufficient frost enter to accumulate in the combs.

The above is the only chaff casing which I would trust, in as severe a season as last winter. In the place of chaff, one could substitute dry leaves, sawdust, oat hulls, tan-bark or fine chip-manure, or any other substance which is a good non-conductor of heat, and a good absorbent. In case the bees need feeding during winter, put a half inch thickness or more of granulated white sugar upon the cloth immediately over the cluster of bees, set the chaff box over it, and the breath of the bees will slowly dissolve it, and they will suck the syrup through the cloth as they need it, and any surplus will be stored by the bees within reach of the cluster.

In the above outside casing and chaff filling, I have combined all the excellencies of the various hives, and means of protection for out-door wintering, that I have ever seen suggested thus far, and at the same time secured the requisite means of disposing of dampness, which accumulates in winter from the breath of the bees. In short, it converts the whole nine into complete frost-proof hives, prevents moldy combs, and secures the requisite heat, so that the colony can reach any part of their stores without being chilled.

The entire cost of such casing, beside the work, will not exceed 33 cents

per colony. This is much cheaper than double chaff hives, and ten times as effective as a protection.

Wilton, Iowa, Nov. 8, 1881.

For the American Bee Journal.  
Bacteria and Bee-Bread.

W. M. F. CLARKE.

I have the greatest respect for Mr. Heddon's opinions, and it is with no small diffidence that I step into the arena to break a friendly controversial lance with so formidable an antagonist. But it seems to me his article on "Pollen Detrimental to Wintering," in the AMERICAN BEE JOURNAL of Sept. 7, is very vulnerable at several points. No doubt the motto placed at the head of the article in question is a true one, and "in our common ignorance all have an equal right to guess;" but until absolute proof is obtained, let us remember that we are only guessing.

This, it seems to me, Mr. H. forgets, for no sooner has he announced his new "guess," than he becomes almost, and then apparently quite certain that he is right. He "stands 10 to 1" in favor of his new theory, and in the course of a few lines, waxing more confident, finds "it comforting to feel satisfied," flatters himself that "a step has been taken up the hill of science," and proceeds to argue on the basis of "allowing this to be the cause." He says: "I have settled down on the belief, strong and positive." Now what proof does Mr. H. furnish in support of his consumption-of-bread theory?

1. That the unaccountable phenomenon of Smith's bees all dying, while Jones' treated the same, and only 3 miles distant, all, or nearly all live, is yet on our hands, and he thinks his new theory will solve it. But he fails to show how it does so. 2. "The preference for honey during all that period when bees must void no excrement, except by sensible or insensible perspiration, is a fixed fact." Variation from that rule, he thinks, is the cause of dysentery. I would ask, is there any period during which bees "void no excrement?" During the period of rest they void very little, but it is not generally conceded that the ridges of dust which fall on the bottom board during winter, consist of dry feces? Probably, when wintered in perfect condition, bees obtain all the relief they need in this way.

L. C. Root, in his new edition of Quincy's Mysteries, page 255, mentions a case of wintering so satisfactorily, that the bees, though imprisoned from Nov. 17 until May 3, voided no feces in a liquid state on being set out. Did those bees wholly abstain from the use of bee-bread? There is no proof of it. It is not that bees void no feces during winter, but that their diet is so wholesome, and they come into a state so nearly dormant, that exercising but little, they eat sparingly and void only a small quantity of excrement, and that in so dry a condition that it does not befoul the hive.

Mr. Heddon's argument based on the assumption that during a certain period "bees must void no excrement" except in the form of perspiration, is without force. They may and do void some excrement, but it is in minute dry particles that accumulate harmlessly on the bottom board. I cannot suppose that Mr. H. considers these minute particles dried drops of perspiration. What huge drops they must be when they ooze out of the body of the bee, if, after evaporation has dried them, they are of the size we find them.

3. The third proof of his new theory is, that he has found no dead colony that had "not either plenty of bee-bread showing signs of late work with it, or brood in all stages, and generally both, but nearly always brood." Observe the qualification in this last sentence. "Nearly always." "What, never? Hardly ever." This is a very weak place in the reasoning. I can understand that it may, and probably does interfere with successful winter-

ing to have brood-rearing carried on too late. It necessitates a good deal of nurse-work, and more activity generally than accords with that state of quiescence which we know to be so desirable, but, inasmuch as some colonies died that had no young brood, the argument becomes inconclusive. A chain is no stronger than its weakest link. There is another weak spot in this argument. It is that every dead colony showed signs of having been indulging in bee-bread. I presume they also showed signs of having been eating honey if there was any. Mr. H. assumes what he sets out to prove, viz: That eating bee-bread is detrimental to bees. I, for one, am not convinced of this. They may, from certain causes, have eaten too freely of it, but to assume that bee-bread is poisonous on this account, is as unwarrantable as to conclude that fruit is unwholesome to human beings, because some eat too much of it, and become sick. Moreover, we know that bees in storing-cells with pollen, fill them out and seal them with honey. May not a dead colony with plenty of bee-bread showing signs of late work with it—having been doing this kind of work, viz: getting the honey separated from the bee-bread?

I am not quite clear whether Mr. H. considers the use of bee-bread to any extent, however small, injurious to mature bees. I am inclined to think he does, because he says: "Some method of causing the bees to abstain from eating pollen during all that period when they are obliged to semi-hibernate, is what I most desire." Total abstinence from pollen, would seem to be Mr. H.'s new rule for successful wintering. If so, I am constrained to differ from him. I incline to the opinion that as hay, straw and other coarse kinds of food are necessary to the best health of horses and cattle, and as oatmeal porridge, Graham flour and the like are good for man, so there may be a necessity for bees to use a proportion of bee-bread. I am aware that there is a difference of opinion among bee-keepers on this point, some thinking that bee-bread is never used by mature bees, except they are driven to it by impending starvation.

The analysis of pollen would suggest that there may be elements in it that are beneficial to mature bees. It contains nitrogen, carbon, hydrogen and oxygen. Seven per cent. of it is albumen, and there is quite a percentage of fat in it. Honey is no doubt the most refined and concentrated food for bees. The current idea is that they eat nothing else during the height of the working season, though the Scotch verdict, "not proven," attaches to that opinion in my mind. But if in the press of hard work they eat only honey, it may be that their case is like that of a horse when put to his greatest exertion of strength. Then for a short time he may be fed almost wholly on grain, but he must soon return to a partial hay diet, or he will be totally ruined. I cannot prove that bee-bread is a useful and necessary part of the diet of mature bees, but I strongly incline to this view, and see the motto at the head of Mr. H.'s article, "Who shall decide when doctors disagree?" Mr. H. thinks bee-bread the cause of dysentery, while other eminent bee-keepers concur with Mr. Von Morlott, who says that "dysentery does not occur among bees in summer, because they have an abundant supply of pollen, and can fly out at all times." If pollen prevents dysentery in summer, does it cause the disease in winter?

Well, we have got rid of the bacteria. Mr. H. has lifted that mysterious dread from off our minds, and we all feel more comfortable. The "consumption-of-bread theory" is not so terrible an affair as the invisible and impalpable bacteria.

Notwithstanding Mr. H. has "settled down" on his new belief, "strong and positive," I venture to advise him to go slow. I cannot think it would be good policy to eliminate the pollen from our hives next November. It would probably be well to see that our

colonies have both honey and white sugar syrup. Possibly, a varied diet is good for bees, as well as for some higher orders of beings. It is ours to see that there are stores. We must leave their consumption to bee-ininstinct and bee-appetite. Mr. H. seems to fear that bee-bread may sometimes be more attractive to bees than honey. I doubt it. Provide them with both, and if they partake of any bee-bread, I think it will be from some felt necessity. When porridge, beef steak and hot rolls are set before me for breakfast, I feel strongly tempted to give the porridge the go-by, but I know that it is good and necessary for me. Perhaps bees are in this respect as wise as I am; I know that in many directions they are far wiser. I have no doubt bees like honey better than any other article of diet; they always act as if they did. With plenty of honey, if they eat bee-bread, I think it is as I eat porridge, from a sense of duty.

This matter of wintering sorely taxes our best brains. While so much perplexity hangs around it, let us heed John Bunyan's maxim, "to preach only what I know." For all that he is so strong and positive, Mr. H. does not know that pollen, more strictly, bee-bread, is detrimental to wintering. Some careful experimenting will be necessary before we dare launch our apiaries out into winter on this theory. But there are several things we do know. We know that successful wintering depends very much on timely fall preparation. We know that there is a temperature and a quietude which brings bees into a semi-torpor highly conducive to safe wintering. We know the use of the division board in contracting space to the occupying and warming capacity of a colony. There is one point which I am inclined to think is not so well known as it should be, and that is the importance of widening the spaces between the combs in the center of the hive. If the frames are kept their usual distance apart, the bees cannot cluster in sufficient numbers between them to generate the desired amount of heat. Oversight of this has, I believe, caused the death of many colonies. Probably we shall find out by-and-by that the secret of successful wintering does not lie in any new theory, whether of bacteria, bee-bread or anything else, but in a careful conformity to all known conditions. We may keep the whole law except in one point, and that in a particular season, may be the hinge on which the question of success or failure turns. In no pursuit is wide-awake attention to details more necessary than in bee-keeping.

Listowel, Ont., Sept. 9, 1881.

For the American Bee Journal.

Three-Band Test for Italian Bees.

E. A. THOMAS.

On page 285 of the Weekly BEE JOURNAL, Mr. G. M. Doolittle says: "We must conclude that the window test is sufficient, or else that no certain proxy exists." The long-continued home of the Italian bee." It seems to me that there is evidence enough to prove that there are black bees in Italy, and if so it may readily be seen that some of the queens imported from Italy may be hybrid; and if hybrid queens have been imported, what is the use of trying to make Italians out of them by applying the window test? It seems to me Mr. Doolittle is getting this matter down a little too fine. Perhaps I take the opposite extreme when I say that bees that will not stand the most severe test, and show the three orange-colored bands distinctly, should be condemned as impure. They are certainly not up to the highest standard of purity.

Again Mr. Doolittle says: "As far as my experience goes, I have yet to see the queen whose progeny show the three yellow bands under all circumstances." As Mr. D. is a man of much

experience, this would imply that there are no such bees. I have colonies in my apiary that will show the three yellow bands at any period of life, from the time they get dried off after emerging from the cell, until they are too old to fly. I have also seen such colonies in the apiary of Mr. Theodore James, North Adams, Mass., and I know of several others who have such bees. The bands are not quite so light-colored on the very old bees, still they are there as plain as day. Although I think the age of the bee has something to do with its markings, still I should consider bees that had to be filled with honey and placed on a window in the sun, as impure.

I am surprised to see Mr. D. take the position he has, on account of the effect it will have on those who are not very well acquainted with Italians. Such might be led to believe that bees having black blood in them were all right.

I cannot see how there is any danger of applying too severe a test, and it seems to me that the danger lies more in the opposite extreme. Bee-keepers cannot be too careful in testing queens, and all bees that will require one of Sam Weller's "patent double-million-magnifying gas microscopes of hextry power" to determine whether they are pure or not, should be got rid of as soon as possible, and when such stock is got rid of, we may hope to improve the race.

Coleraine, Mass.

For the American Bee Journal.

#### How I Winter My Bees.

J. H. ROBERTSON.

To best illustrate my method of wintering bees, we will take hive No. 1, which stands about 4 inches from the ground, the entrance some lower than the back; made from pine lumber  $\frac{1}{2}$  of an inch thick, 18 inches long, 12 inches deep and 12 inches wide, inside measure. The bottom board projects 4 inches in front, and is securely nailed to bottom of hive; entrance,  $\frac{1}{2}$  inch wide and from 6 to 10 inches long. Around the top of the hive less 1 inch is an inch band; cover or top is some larger than outside of hive, resting on band; no paint; the hive contains 8 frames, all worker combs running from entrance to back of hive; over frames is burlaps cover. The comb ranges from 2 sheets of foundation worked out this season to combs 15 to 20 years old. These contain 15 to 25 lbs. of sealed honey, some unsealed, quite a quantity of pollen, and very little, if any, brood. The queen is a pure, vigorous dark Italian, and less than 2 years old. The hive is fairly boiling with young, healthy matured bees, and so full of them that if you lift the corner of the cover they boil over, seemingly pleased to get a little more room.

To insure success, we enforce these conditions on every colony by removing all light and empty frames, crowding the bees on as few combs as they will cover well, using division boards. If but one comb it must be an old one  $\frac{1}{2}$  or  $\frac{2}{3}$  full of sealed honey, and from 4 to 5 holes through it. Place in center of hive with division board on each side, leaving  $\frac{1}{2}$  inch space on each side of comb; cover over with burlaps and fill balance of hive with dry sawdust, always using full sized hive for winter.

I have in my home yard a half score of rows 10 rods long, about 5x10 feet from center to center of hive, where under my own supervision, every colony will fill these conditions with less than 1 score of division boards in use, and not one ounce of packing of any kind, we are ready for winter. I let them stand out until winter is fairly on us; then carefully remove the top, place a block over the entrance, load 15 or 20 on car and run to bee house door.

The bee house is a frost-proof building, 48 feet long, 10 feet wide and 8 feet high; 6 feet from the entrance is a partition with a door in the center;

on each side are two stringers 40 feet long, 6 inches high, securely fastened. Commencing at back end of the room, I place my first hive about 12 inches from the walls, entrance to the center, on top place two pieces of lath cut the right length; on these, our next hive, two more pieces of lath and another hive, and so on until they are 6 feet high, filling up both sides—putting in every colony in the yard—leaving an alley in the center and room to pass all around both rows. After all are in, will guage the entrance with blocks as I think necessary. As soon as possible I will put 6 or 8 tons of ice in the front room, always keeping it well filled and covering the floor with 2 or 3 inches of slowly moving water, the ventilators being so arranged as to keep the air pure, and the thermometer in the neighborhood of  $40^{\circ}$ , borrowing no trouble if it occasionally rises to  $50^{\circ}$  or  $60^{\circ}$ , leaving them here from 140 to 150 days, requiring all the time, constant and careful attention.

As soon as the weather is favorable, I take them out, not over 1 or 2 car-loads per day, being careful to place them upon the stands they were taken from in the fall. I will now leave them entirely alone, not disturbing or handling them only when necessary; this we will know at a glance when flying.

They have been confined so long they have forgotten all about civilization. For a few days after taking them out the greatest care must be taken to keep them from stinging us, which they usually seem bent on doing with a vengeance. I will now take nuclei and put them in colonies that are queenless, crowding them to working order as soon as possible. My loss in 6 years has been 2 per cent. of colonies put up in the fall, and  $1\frac{1}{2}$  per cent. of queens.

Pewamo, Mich.



#### Canadian Bee-Keepers' Convention.

An interesting and profitable gathering of the bee-keepers was held in Lindsay, Ontario, Oct. 11th and 12th in the council chamber. Mr. S. Corneli was called to the chair, and Mr. C. Neads was requested to act as Secretary. There was a good attendance. It was resolved to form an association to further the interests of bee-keepers in the Midland district included by the Central Fair Association. On motion, Messrs. W. G. Russell, C. Neads and S. Corneli were appointed a committee to draft a constitution and report the following evening.

Reports from those present were called for, which being summed up, show that the number of colonies now owned is 500, increased from 188 in spring; and that the surplus honey obtained was 16,240 lbs., 14,900 lbs. being extracted, and 1,340 lbs. in the comb.

The best method of marketing the honey crop was then taken up and fully discussed. It was stated that much injury is often done by parties who, making bee-keeping altogether a secondary matter, bring their honey to the market as soon as taken in poor shape, and are obliged to sell for whatever is offered, thus breaking down the market at the start. The general opinion seemed to be that it was best not to rush the honey on the market too early. Most of those present wished they had their crop still unsold, as prices are advancing.

The next subject taken up was the different methods of wintering and their results. This was a very important discussion, and much valuable information was elicited. One method was to place the hives in a row on scantling, or raised from the ground a short distance in some way, and pack them on all sides with several inches of either chaff, cut straw,

or dry sawdust, in fact, placing them in a large chaff bin outside, each hive, of course, having a shute from the entrance, allowing the bees to fly whenever the weather was suitable. Messrs. W. Hickson, John Calvert, A. E. Calvert, W. G. Russell, Arthur Russell and C. Neads were very successful last winter with this method. Mr. Carnegie, of the Peterboro Review, was present during the meeting and was invited to a seat at the table.

At the meeting on Wednesday evening, the report of the committee appointed to draft a constitution was read and adopted.

The election of officers then took place and resulted in the election of the following gentlemen to the different offices, viz: S. Corneil, Lindsay. President; W. G. Russell, Millbrook, 1st Vice President; Mr. Hineman, Grafton, 2d Vice President; C. Neads, Lindsay, Secretary and Treasurer; A. E. Calvert, Reaboro, Thos. Hickson, Reaboro, and Arthur Russell, Millbrook, Executive Committee.

It was resolved that, whereas advanced bee-culture is comparatively a new industry in this part of the country, the importance of which has not heretofore been fully recognized, this association beg to suggest to the directors of the Central Exhibition the propriety of giving greater encouragement by granting more liberal prizes, and making a better prize list.

*Resolved*, That the thanks of this association be tendered to the Mayor and Council of Lindsay for their liberality in placing the use of council chamber at our disposal.

*Resolved*, That each member be a committee of one to canvass for members for this association, and to send to the Secretary names of bee-keepers in their vicinity, or any in the territory covered by this association.

A question drawer was opened, and a committee appointed to reply to the queries. This elicited the following questions:

Would it pay to expose at this season of the year empty surplus combs? One reply was that if the combs were placed at some distance from the hives, the bees would clean them up and would not start robbing. Another opinion was that it was better to set them in the back part of the hive separated from the brood nest by a division board.

How to winter with the best results was the next question in the drawer. In addition to the methods given at the previous meeting, Mr. I. G. Moynes, of Fenelon, who has scarcely lost any bees during the last 11 years, gave his method of wintering his box hives in the cellar. His chief points were an even temperature slightly above freezing point, perfect darkness and no jarring, but above all, raising the hives one or two inches above the bottom boards for ventilation. If these points are attended to, it is not of so much importance whether the cellar is dry or not. We may state *en passant* that, after witnessing the bee-keepers' exhibit, Mr. Moynes has determined to reform next spring and exchange his box hives for more modern appliances.

How would you transfer from box hives to frame hives and when, was the next question. As to the time, the answer was during fruit bloom, because the hives are then light, and there is something for the bees to gather. The process of taking bees and combs from the box hive and fixing them up snugly in movable frames was fully gone into, but a description in detail would be too lengthy here. Any one having such a job before him, can get full information in the books on bee-culture, any of which Mr. R. S. Porter will order on application.

Swarming is natural or artificial swarming the best method of increase, came next in order. This called forth a most interesting discussion, both methods having very warm advocates. Against artificial swarming, it was urged that more attention was required to prevent natural swarms than could be given by those not devoting their time exclusively to the business; but its advocates claimed for it a larger yield of honey. On the other hand, it was urged against natural swarming, that bees were sure to come out while the family were at church, or at other most inconvenient times, and if not promptly attended, they would go to the woods. Its advocates, while admitting the necessity of a watch, claim that new swarms worked with so much vigor, that a larger yield of honey was obtained. This brought out a comparison of what had been accomplished by an advocate of each method. Thomas Hickson, of Ops, had 13 colonies in the spring, increased to 43, and took 1,600 lbs. of surplus honey by natural swarming. Joseph Russell, of Manvers, had 17 colonies in the spring, which he had increased to 65 by artificial swarming, and obtained 2,000 lbs. of surplus honey. These results were considered so nearly equal, that it was thought better for each to follow the method best adapted to his own particular circumstances.

The association sat till a late hour, but everyone went away pleased with the discussions, and satisfied the time was well spent. The next annual meeting is to be held at the time and place of the next Central Exhibition.

#### Saunders Co., Nebraska, Convention.

On call of Rev. E. L. Dodder, a meeting of those interested in the culture of the honey bee was had at Wahoo, Neb., Oct. 8, 1881. Present, 15 persons, all residents of this County.

Rev. E. L. Dodder was selected as temporary Chairman, and Rev. J. J. Burtsch, Secretary.

The object of the meeting was to consider, and if deemed desirable, proceed to the formation of an association in this County.

After due deliberation, by unanimous consent, the meeting proceeded to the permanent organization of the Saunders County Bee-Keepers' Association by the election of T. L. Whitbeck, President, Mrs. C. L. Stocking, Secretary, S. V. Decker, Treasurer and keeper of supplies. Members enrolled, 15.

A committee was appointed to draft a constitution to report at a subsequent meeting to be called by the President.

Numerous valuable suggestions were made by those present, on the care and management of bees.

Rev. E. L. Dodder, by request, delivered an excellent address, covering the entire subject of bee-culture, which was considered a rare treat by those interested in the propagation and management of bees in the most approved and scientific manner.

The speaker has shown by the management of his apiary while residing in our midst, as well as by precept, that he is not only a bee-keeper, but a bee-master, and those who follow his instructions with judgment and care, must succeed. Adjourned.

#### ADJOURNED MEETING.

The Saunders County Bee-Keepers' Association met in special session pursuant to call of President, at Wahoo, Neb., Nov. 5, 1881.

The Secretary being absent, C. F. Williams was chosen Sec. *pro tem.*

The Committee appointed to draft a constitution, presented the same for action, which was adopted.

The officers of the association consist of President, Vice President, Secretary, Treasurer and keeper of supplies, who are elected annually.

Regular meeting, first Saturday in October and April of each year.

Any person may become a member of this Association on application and payment of 50 cents.

Office of Vice President being vacant, C. C. Turney was elected to that office for 1 year.

Additional members enrolled 5; whole number of members 20.

On motion, the Secretary was instructed to furnish each of the town papers, also the Chicago BEE JOURNAL, with a copy of the proceedings.

C. F. WILLIAMS, Sec'y *pro tem.*



**Best Hive for Comb Honey.**—I commenced last spring to keep a Bee Account Book, noting down everything of consequence, which I shall keep for future reference. We had snow on Nov. 3, but it is all gone and my bees are now bringing in pollen. Please state in the BEE JOURNAL which size of hive you think best for the production of comb honey. F. H. SEARS. Girard, Pa., Nov. 6, 1881.

[For comb honey nearly all agree that a shallow frame is best—we prefer the Langstroth.—ED.]

**Poor Honey Season.**—The honey season in this section has been the poorest known for many years. No rain, to do any good, since June 10, till the 28th of this month. Waters lower than they have been for years; many of the streams are entirely dried up. Bees had to be fed to get them in condition for winter.

H. H. BROWN.  
Light Street, Pa., Oct. 31, 1881.

[In the West there has been a superabundance of rain for the past month. To have had it equalized between the East and West, would have been more agreeable all around.—ED.]

**Entirely Satisfied.**—I had 5 colonies in the fall of 1880, and lost 3 last winter; they were wintered on summer stands. I have taken 130 lbs. of fine section honey, and 12 lbs. extracted; increased to 7, all are well provided for winter. I am entirely satisfied over the result of last season's labor. I send my best wishes for the prosperity of the BEE JOURNAL. I am much pleased with it and cannot do without it.

F. C. GASTINGER.  
Kenton, O., Nov. 2, 1881.

**Honey from Alsike Clover.**—After uniting a few weak colonies in the spring, I had 136 colonies; sold 61 first class colonies and 2 nuclei, which left me 73 colonies to begin the season with. I worked 27 colonies for extracted honey; have taken an average of 211 lbs. per colony. I put boxes on 20 young colonies, and have an average of 40 lbs. each of comb honey. I run the rest of them for increase, and have this fall 147 colonies. Our bees had 18 acres of new seedling and 4 acres second crop of alsike clover to work on, from which they gathered most of the honey. Basswood did not yield much honey this year.

C. M. WOOLVER.  
Hallsville, N. Y., Nov. 6, 1881.

[Here is a very good illustration that even in New York, where land is most valuable, it will pay to plant for bee pasturage. Had our correspondent not run for increase, and suppose only 150 of the 211 lbs. of honey were directly attributable to the alsike, he would have realized 10,950 lbs. from his 73 colonies, which, at 10c. per lb., would have brought the handsome sum of \$1,095 rental for 22 acres of clover-land.—ED.]

**The National Convention.**—I have just finished reading that gem of an article by Dr. J. P. H. Brown, on the "Races of Honey Bees." To the scientific bee-keeper it is worth the price of a year's subscription to the Weekly BEE JOURNAL. I suppose this ends the proceedings of the National Convention, where a great many other splendid articles were read touching points on our noble and interesting calling. But notwithstanding all this, the National Convention did not come up to my expectations. When I read the programme, and then the proceedings, I was disappointed. There

seems throughout a great lack of interchange of views. Now, I consider the discussion of the various topics in bee-keeping the backbone of all bee-meetings, whether local or National; but long articles, however excellent, crowd out other work. I do hope, in all future meetings throughout the country, this evil will be remedied by having shorter addresses and more discussion.

GEO. THOMPSON.  
Geneva, Ill.

[We quite agree with Mr. Thompson regarding the desirability of publishing more debate, but how can it be done without omitting the essays, or limiting their number to two or three? Much of this essay business is very monotonous to the general reader, and might, without loss to the public, be omitted from the published reports. Certainly, no editor would be excused by these essayists if he was to neglect publishing their productions *in extenso*, while giving an official report, and no reporter can do himself justice in giving sketches of debate, where his allotted space is already much more than consumed. We cannot see any way in which it can be done, except for the Society to employ a stenographic reporter, and publish the proceedings in pamphlet form.—ED.]

**Spring and Summer Honey Plants.**—Which are the most suitable honey plants (annuals) for early spring and summer? My soil is light sandy. Answer in BEE JOURNAL.

THOS. R. SMITH.  
Leighton, Ala., Nov. 7, 1881.

[Catnip, motherwort and summer rape, ought to do well on your soil. Although a biennial, try a patch of sweet clover (*Melilotus alba*).—ED.]

**Using Drone Foundation.**—I have 6 colonies of Italian bees; should I use drone foundation in each hive, and how much? Had I 30 colonies, should I use it, and how much? Or, had I better use a larger quantity in only a few hives located in the center of the apiary. One colony had 12 lbs. of honey, I gave them a frame of granulated sugar candy a week ago, next the side-wall. The bees have been carrying it out at the entrance ever since. I removed the candy, and one-fourth was consumed or carried out at the entrance. Did I get the candy too hard, or burned, or should I have waited until their stores were nearly consumed before I gave the candy? To another colony having 8 lbs. of honey mostly unsealed, I gave 2 frames of sealed honey next the side-walls. The bees carried the honey to the center frames, stripped the frames of comb, and I think used it to cap over the honey. Why did they do so?

F. M. CHENEY.  
South Sutton, N. H.

[Use no drone foundation, unless you have a particular strain that you desire drones from, in which case one or half a comb with drone cells will be ample, near the centre of brood nest. Nothing will be gained by placing this hive in the center of the apiary. Had you placed the sugar candy near the center, there would have been no necessity for the bees to carry it there; being granulated, the bees could not, without too much labor, liquefy it so as to carry it in their honey-sacs to the center. In winter, the moisture in the hive softens the candy so the bees can consume it. The combs of sealed honey might have been placed near the center. The cell-walls were cut away by the bees to give room for a greater number to assist in emptying them.—ED.]

**Italians are Good Enough.**—I commenced this season with 22 colonies, rather weak; increased to 33 by dividing, and bought 17. I now have 50 strong, pure Italian colonies, except one pure Cyprian, the head of the queen of which I intend to "pinch" early in the spring. The Italians are good enough for me, i.e., the long, leather-collared ones. I have taken 700 lbs. of extracted honey of the finest quality, sold at 15 cts.; reared and sold nearly 200 queens, and have not quite done yet. There is plenty of honey in the hives to last through the winter.

J. S. TADLOCK.  
Kingsbury, Tex., Nov. 1, 1881.

**Honey Cake.**—At the request as printed in the BEE JOURNAL, I here-with give the recipes for the honey cakes that I presented to the Toronto Convention:

**HONEY SPONGE CAKE.**—Two-thirds of a breakfast cup of sour cream, 3 cupsful of flour, an even teaspoonful of soda, 1 cup of butter, 3 eggs, 1 1/4 lbs. of honey, 1 tablespoonful of cinnamon, half tablespoonful of allspice, and a little extract of lemon; mix the spices with the flour; put the soda in the milk and stir well, that all the ingredients may thoroughly mix; beat the cake well for another 5 minutes; put it in a buttered tin—bake from one-half to three-quarters of an hour. This is nice eaten warm. I used buckwheat honey for those at the Convention.

**GINGER CAKE.**—Take 1 1/4 lbs. of honey, 1/4 lb. of butter, 1 1/2 lbs. of flour, 1 ounce of ginger, 1/2 ounce of ground allspice, 1 teaspoonful of carbonate of soda, 1/4 of a pint of sour milk cream if you choose, 3 eggs; put the flour into a basin with the ginger and allspice; mix these together, warm the butter and add it with the honey to the other ingredients; stir well; make the milk just warm and dissolve the soda in it, and make the whole into a nice, smooth paste with the eggs which should be previously well whisked; pour the mixture into a buttered tin—bake it from three-fourths to 1 hour; take the white of one egg and beat it up with a little sweet milk and take a feather and brush the top; this will give it a glossy appearance. This cake can be baked in 2 equal pie tins.

Mrs. J. G. A. WALLACE.  
Brighton, Ont., Nov. 7, 1881.

[If some good sisters would make a honey cake for every Convention of bee-keepers, it would materially add to the interest. Anything to awaken enterprise and develop the uses for honey, must be advantageous to the bee and honey industry.—ED.]

**Why the Difference?**—One year I had in my home apiary 60 colonies that ceased brood-rearing and honey and pollen gathering about August 15th. According to the best authorities, they should have died off before spring from old age. Six miles away, in a swamp, were 24 colonies which gathered fall honey and pollen for six weeks later—these I bought. According to rule, they should have come through in prime condition. All were wintered in the same cellar from Nov. 17 to April 18. My home apiary, mostly old bees, spring honey, and little pollen, wintered well, and dwindled in spring 10 per cent. The swamp bees, with fall honey and pollen, wintered well also, and dwindled 60 per cent.

The only point of difference perceptible was that of frame—the swamp hives having frames 14 inches deep, and the home hives being 11 1/2. Are we to blame the fall honey and pollen on which the swamp colonies wintered, or the difference in depth of frame? If American bee-keepers will visit Toronto Agricultural Fair next fall, I have no doubt they will be somewhat astonished by the honey products exhibited there, as to quality and quantity.

I. C. THORN, M. D.  
Streetsville, Canada, Nov. 3, 1881.

[The difference in spring dwindling was probably attributable to earlier

breeding in the swamp colonies; they had fresher honey, more pollen, and deeper frames to concentrate the heat in the center. We imagine that bees but seldom die from old age—certainly not in summer; but with everything the most favorable for wintering, the long, semi-dormant period is one of rest and repose, rather than debility and exhaustion.—ED.]

**Old Queens.**—I have several colonies of bees that have retained their drones. Supposing they were queenless, I opened one and found the queen all right. Please let me know through the BEE JOURNAL why it is.

C. BERRY.

Savannah, O., Oct. 3, 1881.

[The queens are old, and honey-gathering and breeding having probably been kept up till quite late, a larger proportion of drones than usual have been reared.—ED.]

**New Courage for Next Season.**—Allow me to thank you for the very complete table showing the amount of surplus honey, increase of colonies, etc., for 32 States. This table adds one more essential feature to the already popular AMERICAN BEE JOURNAL, and no bee-keeper that expects to keep pace with the rapid strides of our progressive pursuit, can think of getting along without it, and file away for future reference every number that comes into his possession. The full report of the North American Bee-Keepers' Society, so recently held at Lexington, Ky., is a rich feast of great things which so many of us (though we could not be present), by our own quiet firesides, can be informed of all that was said and done through the columns of the BEE JOURNAL. I will not comment upon any particular paper or speech read or delivered before the Convention, but simply say that it is "all good." The bees are doing well in the mountains on goldenrod. A fine rain Oct. 25, gave us new courage, and renewed confidence in the season of 1882.

A. W. OSBURN.

Los Angeles, Cal., Nov. 1, 1881.

**"HELEN'S BABIES."**—An entirely new edition of this famous book is in press, and will be published in a few days by T. B. Peterson & Brothers, Philadelphia, Pa., with a very handsome illustrated cover having portraits of Budge and Toddie, Martha, Mary and the Goat upon it. John Habberton, the author, has given Budge and Toddie world-wide celebrity; they have pleased thousands with their pranks, and will please thousands more, for it is simply impossible to resist their fascination. Orders should be sent in early.

**The Southwestern Wisconsin Bee-Keepers' Association** will hold its next meeting in Platteville, Grant Co., Wis., Nov. 30, 1881.

N. E. FRANCE, Sec., Platteville, Wis.

**The Michigan State Bee-Keepers' Association**, will convene at Battle Creek, on Thursday, Dec. 8, 1881. We have reason to expect one of the largest and most interesting meetings we have ever held. Let all arrange to be present. All District Associations should send delegates. Each person should come with their best experience in their hands, ready to hand it over to the others of the fraternity. Commutation rates are expected on railroads.

A. J. COOK, Pres.

T. F. BINGHAM, Sec.

**The Texas State Bee-Keepers' Convention** will be held at McKinney, Texas, on Tuesday, April 25, 1882.

## Special Notices.

Single copies of the JOURNAL sent postage paid for 5 cents each.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or \$8 per 100.

Articles for publication must be written on a separate piece of paper from items of business.

Photographs of prominent Apiarists—Langstroth, Dzierzon, and the Baron of Berlepsch.—Price 25 cents each.

When changing a postoffice address, mention the old as well as the new address.

Those who may wish to change from other editions to the Weekly, can do so by paying the difference.

Constitutions and By-Laws for local Associations \$2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

An Agreeable Dressing for the Hair, that will stop its falling, has been long sought for. Parker's Hair Balsam, distinguished for its purity, fully supplies this want.

44w4

A Sample Copy of the Weekly BEE JOURNAL will be sent free to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

Examine the Date following your name on the wrapper label of this paper; it indicates the time to which you have paid. Always send money by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, or local checks, are not taken by the banks in this city except at a discount of 25 cents, to pay expense of collecting them.

Premiums.—For a club of 2, weekly, we give a copy of "Bees and Honey"; for a club of 5, weekly, we will give a Cook's Manual, a Bee-keeper's Guide, bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year free. It will pay to devote a few hours to the BEE JOURNAL.

Women are Everywhere Using and recommending Parker's Ginger Tonic, because they have learned from experience that it speedily overcomes despondency, indigestion, pain or weakness in the back and kidneys, and other troubles peculiar to the sex. *Home Journal.* See adv.

44w4

It would save us much trouble, if all would be particular to give their post office address and name, when writing to this office. We have letters (some inclosing money) that have no name, post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

Why suffer such unspeakable tortures? Rheumatism has been conquered. Kendall's Spavin Cure is the victor. See advertisement.

44

We have a SPECIAL EDITION of the Weekly BEE JOURNAL, just as it will be published in 1882 (16 pages), for distribution at Fairs, Conventions, etc. Any one who may desire to distribute them to bee-keepers will be supplied free, in any quantity they may be able to judiciously use.

## Honey and Beeswax Market.

## BUYERS' QUOTATIONS.

OFFICE OF AMERICAN BEE JOURNAL, Monday, 10 a. m., Nov. 14, 1881.

The following are the latest quotations for honey and beeswax received up to this hour:

## CHICAGO.

HONEY.—The market is lively and prices steady. We quote light comb honey, in single comb boxes, 18¢/2c.; in larger boxes 2c. less. Extracted 80¢/2c.

BEESWAX.—Prime quality, 18¢/2c. AL. H. NEWMAN, 972 W. Madison St.

## NEW YORK.

HONEY.—The supply is full, and trade is lively. We quote as follows: White comb, in small boxes, 18¢/2c.; dark, in small boxes, 15¢/17c. Extracted, white, 10¢/11c.; dark, 7¢/8c.

BEESWAX.—Prime quality, 21¢/22c.

THORN & CO., 11 and 13 Devoe avenue.

## ST. LOUIS.

HONEY.—In fair demand. Comb firmer at 20¢/2c. a lot of 23 boxes sold at the latter figure. Extracted and extracted rather slow at 9¢/12¢c.—Inside price for standard lots. Sale 16 bbls. (\$8,000 lbs. net) on Thursday, at 9c.

BEESWAX.—Selling lightly at 18¢/20c. R. C. GREEK & CO., 117 N. Main Street.

## CINCINNATI.

HONEY.—Is in good demand here now. I quote: Good comb honey, in sections, is worth 18¢/20c., on arrival. Extracted, 7¢/8c. on arrival.

BEESWAX.—18¢/22c., on arrival. I have paid 25c. per lb. for choice lots.

C. F. MUTH.

## BOSTON.

HONEY.—1-pound combs are a desirable package in our market, and a large quantity could be sold at 20¢/2c., according to quality.

BEESWAX.—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

## SAN FRANCISCO.

HONEY.—Supply is in excess of the demand at present. Several hundred cases arrived this week, and there are advices of more still to come.

We quote white comb, 18¢/20c.; dark to 10c. 10¢/14c. Extracted, choice to extra white, 9¢/10c.; dark and candied, 7¢/8c. BEESWAX.—23¢/25c.

STEARN & SMITH, 423 Front Street.

## BALTIMORE.

HONEY.—But little on the market, and prices are not quoted.

BEESWAX.—Southern, pure, 21¢/23c.; Western, pure, 21¢/22c.; grease wax, 11c.—*Baltimore Market Journal.*

## INDIANAPOLIS.

HONEY.—New, in 1 or 2 lb. sections, 22¢/25c.—*Indianapolis Stock Review.*

## PHILADELPHIA.

HONEY.—The supply and demand are alike nominal.

BEESWAX.—Best light 23¢/25c.—*Philadelphia Merchants' Guide.*

## CLEVELAND.

HONEY.—We report the market quite active; all our sales this week of comb honey in 1 pound sections have been made at 22c., and two pound sections at 25c. Extracted has taken a start, and we report trade quite active in small packages, 3¢/4¢ tins cans, especially, at 12c. per lb. Extracted in bbls. continues dull.

BEESWAX.—23¢/25c.

A. C. KENDEL, 115 Ontario Street.

## Local Convention Directory.

1881. Time and Place of Meeting.

Nov. 30.—W. Wisconsin, at Platteville, Wis.

N. E. France, Sec., Platteville, Wis.

Dec. 8.—Michigan State, at Battle Creek, Mich.

T. F. Bingham, Sec., Abrovia, Mich.

Jan. 10.—Cortland Union, at Cortland, N. Y.

C. M. Bean, Sec., McGrawville, N. Y.

25.—Northeastern, at Utica, N. Y.

G. W. House, Sec., Fayetteville, N. Y.

April 11.—Eastern Michigan, at Detroit, Mich.

A. B. Weed, Sec., Detroit, Mich.

25.—Texas State, at McKinney, Texas.

Wm. H. Howard, Sec.

May 2.—Champlain Valley, at Bristol, Vt.

T. Brookins, Sec.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

## CLUBBING LIST FOR 1882.

We supply the Weekly AMERICAN BEE JOURNAL and any of the following periodicals, for 1882, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

Publishers' Price, Club.

and Gleanings in Bee-Culture (A. J. Root) 3 00. 2 75

Bee-Keepers' Magazine (A. J. King) 3 00. 2 60

Bee-Keepers' Instructor (W. Thomas) 2 50. 2 25

The 4 above-named papers..... 4 50. 4 00

Bee-Keepers' Exchange (A. J. Root) 3 00. 2 75

Bee-Keepers' Guide (A. J. H. Hill)..... 2 50. 2 25

Kansas Bee-Keeper..... 2 50. 2 15

The 7 above-named papers..... 6 50. 5 50

Prof. Cook's Manual (bound in cloth) 3 25. 3 00

Bees and Honey, (T. G. Newman)..... 2 40. 2 25

Binder for Weekly, 1881..... 2 85. 2 75

Binder for Weekly for 1882..... 2 65. 2 50

FOR SALE.—150 Colonies of Italian Bees in improved Quinby hives, in prime condition.

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\$777 A YEAR and expenses to agents, outfit free. address P. O. Vickery Augusta, Maine. 36w1y

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## The Bee-Keeper's Guide;

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## MANUAL OF THE APIARY,

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Of Lansing, Professor of Entomology in the State Agricultural College of Michigan.

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This is a new edition of Prof. Cook's Manual of the Apiary, enlarged and elegantly illustrated. The first edition of 3,000 copies was exhausted in about 18 months—a sale unprecedented in the annals of bee-culture. This new work has been produced with great care, patient study and persistent research. It comprises a full delineation of the anatomy and physiology of the honey bee, illustrated with many costly wood engravings—the products of the Honey Bee; the races of bees; full descriptions of honey-producing plants, trees, shrubs, etc., splendidly illustrated—and last, though not least, detailed instructions for the various manipulations necessary in the apiary.

This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

Read the following opinions of the Book:

All agree that it is the work of a master and of real value.—*Apiculture, Paris.*

I think Cook's Manual is the best of our American works.—LEWIS T. COLBY.

It appears to have cut the ground from under future book-makers.—*British Bee Journal.*

Prof. Cook's valuable Manual has been my constant guide in my operations and successful management of the apiary.—J. P. WEST.

This book is just what everyone interested in bees ought to have, and which no one who obtains it will ever regret having purchased.—*Mich. Far.*

Is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without.—*Nebraska Farmer.*

To all who wish to engage in bee-culture, a manual is a necessity. Prof. Cook's Manual is an excellent work.—*Herald, Monticello, Ill.*

With Cook's Manual I am more than pleased. It is fully up with the times in every particular. The richest reward awaits its author.—A. E. WENZEL.

My success has been so great as to almost astonish myself, and much of it is due to the clear, disinterested information contained in Cook's Manual.—WM. VAN ANTWERP, M. D.

It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee-raisers.—*Ky. Live Stock Record.*

It is a credit to the author as well as the publisher. I have never met with a work, either French or foreign, which is like it.—L. A. DU BOIS, editor of the *Bulletin d'Apiculture, France.*

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat, Putnam, N. Y.*

We have perused with great pleasure this valuable work of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist, Quebec.*

This book is pronounced by the press and leading bee-men to be the most complete and practical work on the subject of bee-keeping in Europe and America. It is a scientific work on modern bee management that every experienced bee-man will welcome, and it is handsomely printed, neatly bound, and is a credit to the West.—*Western Agriculturist.*

This work is undoubtedly the most complete manual for the instruction of bee-keepers which has ever been published. It gives a full explanation regarding the care and management of the apiary. There is no subject relating to the culture of bees left untouched, and in the compilation of the work Prof. Cook has had the advantage of all the previous knowledge of apiarists, which he uses admirably to promote and make popular this most interesting of all occupations.—*American Inventor.*

It may safely be pronounced the most complete manual for the instruction of bee-keepers which have recently appeared on the subject of bees and their handling in America. The studies of the structure of the bee, the different species, the various bee products, and following these the points of management, extending to the smallest details, are all of high and practical value. Prof. Cook has presented the latest phases of progressive bee-keeping, and writes of the themes discussed in the light of his own experience.—*Pacific Rural.*

Of the many excellent works which we have examined on bee-culture, we consider Prof. Cook's the most valuable for the study of those who continually engage in the business; the only difference being that Prof. Cook's Manual combines the profoundness of the German pastor with the superiority of the practical American. He refers in several instances to Darwin; and does not belong to that class which hates every thing that is foreign, for he speaks of German naturalists with great reverence.—*German Freidenker, Milwaukee, Wis.*

PRICE—Bound in cloth, \$1.25; in paper cover, \$1.00, by mail prepaid. Published by

THOMAS G. NEWMAN,

974 West Madison Street, CHICAGO, ILL.

# THE AMERICAN BEE JOURNAL

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**Premiums.**—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of 2,—a copy of "Bees and Honey,"  
" 3,—an Emerson Binder for 1882,  
" 4,—Cook's (Bee) Manual, paper,  
" 5,—" cloth.  
" 6,—Weekly Bee Journal for 1 year.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

**A FARMER'S PAPER.**—Attention is called to the advertisement of the *Ohio Farmer*, of Cleveland, O., in this issue of our paper. It is one of the oldest and most valuable agricultural and family papers of the country.

**C. OLM's Comb Foundation Machine.**  
Send for Sample and Circular.  
18mst C. OLM, Fond du Lac, Wis.

# HONEY

For the past few years I have made this excellent food my leading article. Having the best established reputation in this city as a dealer in PURE HONEY direct from the Apiarists, enables me to obtain the highest market prices. Your consignments and correspondence respectfully solicited.

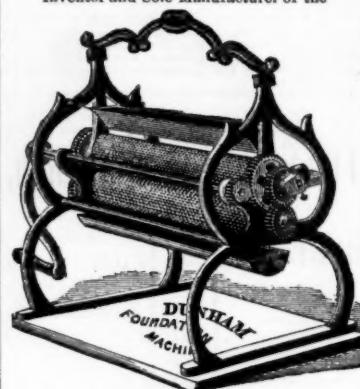
R. A. BURNETT, Commission Merchant,  
Successor to Conner, Burnett & Co.,  
34w13t 165 So. Water Street, Chicago, Ill.

# ELECTROTYPE

Of Engravings used in the Bee Journal for sale at 25 cents per square inch—no single cut sold for less than 50c. THOMAS G. NEWMAN,  
974 West Madison Street, Chicago, Ill.

# FRANCES DUNHAM,

Inventor and Sole Manufacturer of the



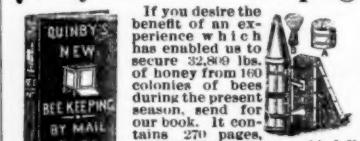
## Dunham Foundation Mill,

Patented Aug. 23, 1881.

New Circular and Samples free.

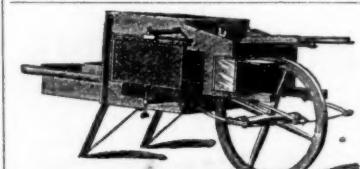
18mst FRANCES DUNHAM, DePere, Wis.

## Quinby's New Bee-Keeping.



If you desire the benefit of an experience which has enabled us to secure 32,800 lbs. of Honey from 100 colonies of bees during the present season, send for our book. It contains 270 pages, with 270 illustrations, and is fully up to the times. Price, by mail, \$1.50. We sell everything used in advanced bee-culture. Send for our illustrated circular.

L. C. ROOT & BRO.,  
46smst MOHAWK, NEW YORK.



## DAVIS' PATENT HONEY CARRIAGE, REVOLVING COMB-HANGER,

Tool Box and Revolving Desk Combined. Carries honey from the hive to the Extractor, a set of aparian tools, metal-lined drawers for broken combs and fragments of wax, revolving comb-hanger, which holds comb firmly while pruning or cutting out queen cells, writing desk, and wash-tub. It is all built in one box, not broken up; subjects to fit all sizes of extracting and brood combs, and is less laborious to handle than the ordinary hand-kets. Write your address on a postal card, and address it to JOHN M. DAVIS,  
36w13t Pattee and Proprietor, Spring Hill, Tenn.

The Original Patent  
TIN PAILS FOR HONEY.

These Pails have a full cover, and are excellent for marketing Candied Honey. The gallon and half gallon pails have a ball or handle, the quart and pints have none.

Assorted samples of the four sizes, put inside one another as a nest, price 50 cents. These pails are very useful for many other purposes, after being emptied of the honey by consumers. The following are the prices:

Per Doz. Per 100  
Gallon, holding 10 lbs. of honey... \$1.80... \$12.00  
Half Gallon, " 5 " " 1.50... 9.00  
Quart, " 2 1/2 " " 1.20... 7.00  
Pint, " 1 1/2 " " 75... 4.00

ALFRED H. NEWMAN,  
972 West Madison Street, Chicago, Ill.

## Rev. A. SALISBURY

Camaro, Douglas County, Ill.

Warranted Italian Queens, \$1.00; Tested Italian Queens, \$2; Cyprian Queens, \$2.00; Tested Cyprian Queens, \$1; 1 frame Nucleus, Italian, \$1.00; 1 frame Nucleus, Cyprian, \$1.50; Colony of Italian, 8 frames, \$5.00; Colony of Cyprian, 8 frames, \$10.00. Wax worked 10c. per lb. Pure Comb Foundation, on Dunham Machine, 25 lbs. or over. Send for Circular.

18mst

Given's Foundation Press.

The latest improvement in Foundation. Our thin and common Foundation is not surpassed. The only invention to make Foundation in the wired frame. All Presses warranted to give satisfaction. Send for Catalogue and Sample.

D. S. GIVEN, Hooperston, Ill.

J. VAN DEUSEN & SONS,  
Sons Manufacturers,  
Sprout Brook, Mont. Co., N. Y.

high side-walls, 4 to 16 square feet to the pound. Circular and Samples free.

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